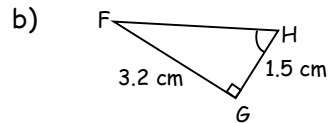
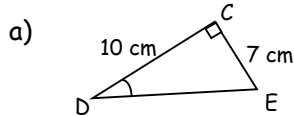


GRADE 10 PC MATH - TRIGONOMETRY CHAPTER REVIEW

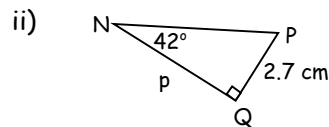
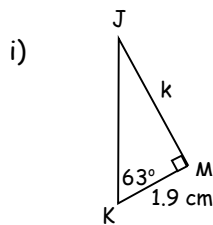
NAME: _____ DATE: _____

Show all of your work. This worksheet will be checked for completion by the end of this period.

1. Determine each indicated angle to the nearest degree.



2. a) Determine the length of each indicated side to the nearest tenth of a centimetre.



- b) Use the Pythagorean Theorem to determine the length of the hypotenuse of each triangle in part a). What other strategy could you have used to determine each length?

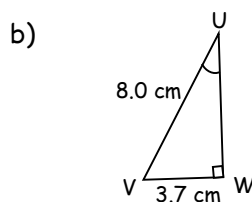
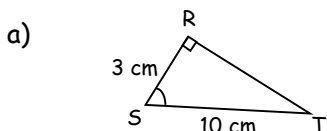
3. At a point 100 m from the base of the Eiffel tower, the angle of elevation of the top of the tower is 73° . How tall is the tower to the nearest metre? Include a sketch.

4. The shorter side of a rectangle is 5.7 cm . The angle between this side and a diagonal is 64° . State your answers to the nearest tenth of a centimetre.

- a) Determine the length of the rectangle. b) Determine the length of a diagonal.

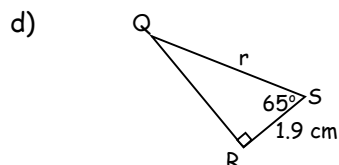
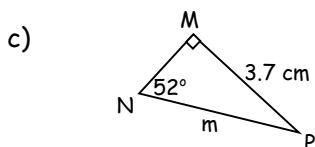
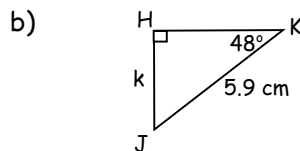
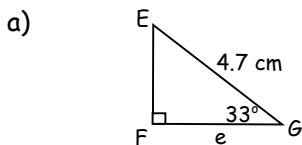
5. A tree casts a shadow that is 31.5 m long when the angle between the sun's rays and the ground is 29° . What is the height of the tree to the nearest tenth of a metre?
6. Aidan knows that the observation deck on the Vancouver Lookout tower is 130 m above the ground. He measures the angle between the ground and his line of sight to the observation deck as 77° . How far is Aidan from the base of the tower to the nearest metre?

7. Determine the measure of each indicated angle to the nearest degree. Explain your chosen trigonometric ratio.

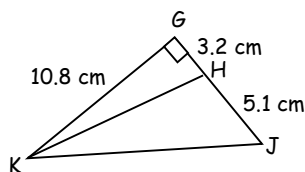


8. During a storm, a 10.0 m telephone pole was blown off its vertical position. Now at a slant, the top of the pole is 9 m directly above the ground. What is the angle of inclination of the pole to the nearest tenth of a degree?

9. Determine the length of each indicated side to the nearest tenth of a centimetre. Explain your chosen trigonometric ratio.



10. A ship is sailing off the west shore of Hudson Bay. At a certain point, the ship is 4.5 km due east of the town of Arviat. The ship then sails due north until the angle between the path of the ship and the line of sight to Arviat is 48.5° . How far is the ship from Arviat to the nearest tenth of a kilometre?
11. In the diagram below, determine each measure. Give the measures to the nearest tenth.



- a) KJ b) HK c) $\angle HKJ$

Answers:

- | | | | | | | | | |
|-----|----|---------|--------|---------|--------|--------|----|--------|
| 1. | a) | 35° | b) | 65° | | | | |
| 2. | a) | i) | 3.7 cm | ii) | 3.0 cm | | | |
| | b) | i) | 4.2 cm | ii) | 4.0 cm | | | |
| 3. | | 327 m | | | | | | |
| 4. | a) | 11.7 cm | b) | 13.0 cm | | | | |
| 5. | | 17.5 m | | | | | | |
| 6. | | 30 m | | | | | | |
| 7. | a) | 73° | b) | 28° | | | | |
| 8. | | 64.2° | | | | | | |
| 9. | a) | 3.9 cm | b) | 4.4 cm | c) | 4.7 cm | d) | 4.5 cm |
| 10. | | 6.0 km | | | | | | |
| 11. | a) | 13.6 cm | b) | 11.3 cm | c) | 21.0° | | |

